

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-7, 11, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitaker 3,463,145 in view of Hoshino 2002/1063231.

Regarding claim 2-3, 5-6, 11, Whitaker discloses an exercise device comprising a base 5 fixed in place, and a support portion 23 configured to support a part of the user's body such that at least a part of the user's own weight acts on a leg including a femoral region (deemed the user's legs dangle off the edge of the seat and touches the ground), a control unit 24, a drive source 12 controlled by the control unit, a coupling mechanism 6-10 to which the drive source is connected, the coupling mechanism is configured to movably couple said support portion to said base (figures 1-2) such that a load acted on said leg by the user's own weight varies according to a relative positional displacement between a foot position and a position of center of gravity of the user (the change in tilt of the seat changes the center of gravity of the user and thus changes the amount of force the user has to use in their legs to balance on the seat against the supporting surface), and also configured to limit a movable direction of said support portion such that a direction of the relative positional displacement between the foot

position and the position of center of gravity is limited to a direction of flexion and extension of a knee joint of the user (tilt in the forward and rearward direction as seen in figures 1-2).

Whitaker teaches the invention as substantially claimed, see above. However, they fail to disclose: the support portion comprises a saddle.

Hoshino teaches the support portion comprises a saddle for supporting a user's buttocks (figure 1), the saddle has a pair of curved recessed 14, 15 at its outer periphery configured that the femoral region of the user fit the recesses, the curved recesses are configured such that the open angle between the user's leg substantially corresponds to flexion and extension of the left and right knee joints (figures 8-9) under the condition that the user is in a sitting posture on the saddle and places their feet on the foot positions, the curved recesses are configured such that an open angle between the user's legs is in a range of 30-70 degrees (figure 8), a first bump formed at the forward side (adjacent stitching 36 at the front of the saddle as seen in figure 1), a second bump formed at the rearward side 19, the curved recesses are provided between the first and second bump (figure 1), a forward position of the saddle (next to elements 14, 15 by the front of the saddle as seen in figure 1) is positioned to be lower than a saddle center position with the curved recesses, and a rearward portion of the saddle 19 is positioned to be higher than the saddle center portion.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Whitaker's seat with Hoshino's ergonomic saddle in order to place the user's center of gravity directly over the seat to make the seat more comfortable and

reduce aches and pains from sitting in the saddle for prolonged periods, as taught by Hoshino (paragraphs 0002, 0009).

Whitaker in view of Hoshino teaches the invention as substantially claimed, see above, and further teach the saddle is oscillated between a position where the saddle is in the upright posture perpendicular to the base (Whitaker: when the chair is parallel to the ground as shown in figure 3) and a position where the saddle is inclined or angled in a forward left (Whitaker: figure 1) or forward right direction (Whitaker: figure 2) as seen in front of the user (Whitaker: from the perspective of a person who is looking at the chair from a side view; similar to that of the perspective as shown in figures 1 or 2).

Regarding claim 4, Whitaker in view of Hoshino teaches the invention as substantially claimed, see above. However, they fail to disclose: the curved recesses are configured such that an inclination angle of the femoral region of the user relative to a vertical direction is in a range of 30-50 degrees under the condition the user is in a sitting posture on the saddle.

However, it has been held that "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." See in MPEP 2144.05 II. Whitaker does not positively disclose the range that the seat tilts forward, thus not providing the angle of inclination of the femoral region of the user. But, it would have been obvious to one of ordinary skill in the art at the time of the invention to have the Whitaker seat tilt forward such that it provides an angle of inclination for the femoral region of the user within the range of 30-50 degrees in order to allow Whitaker's seat to pivot over a large range.

Regarding claim 7, Whitaker in view of Hoshino teaches the invention as substantially claimed, see above. However, they fail to disclose: a backrest detachably attached to a rear portion of the saddle.

However, it has been held that if it is desirable to make a part removable that is not manually removable, then it would have been obvious to one of ordinary skill in the art make that part removable. See in MPEP 2144.04 V C. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the backrest selectively detachable to a rear portion of the saddle if the backrest needs to be repaired or replaced.

Regarding claim 16, Whitaker in view of Hoshino teaches the invention as substantially claimed, see above, and further teaches an open angle between the user's legs is in a range of 30 degrees to 70 degrees (due to portion 11 of the Hoshino saddle), and the open angle substantially corresponds to directions of flexion and extension of left and right knee joints under the condition that the user is in a sitting posture on the saddle, and places a foot on the foot position (the user's legs would stay at this angle despite the tilt of the Whitaker chair).

Claims 8, 10, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitaker in view of Hoshino and further in view of Bavaresco 6,357,825.

Regarding claims 8, 10, 13, Whitaker in view of Hoshino teaches the invention as substantially claimed, see above, and further teaches the saddle is symmetrical along an axis in the length direction (Hoshino: figure 1).

Whitaker in view of Hoshino teaches the invention as substantially claimed, see above. However, they fail to disclose: a saddle-length adjuster configured to change a length of the saddle in a forward and rearward direction, and a saddle-angle adjuster configured to change an inclination angle of an inner surface of the curved recess.

Bavaresco teaches a saddle-length adjuster 10, 11, 12, 18", 19" (figures 1, 2, 7) configured to change a length of the saddle in a forward and rearward direction, and a saddle-angle adjuster 10, 11, 12, 18", 19" (figures 1, 2, 7) configured to change an inclination angle of an inner surface of the curved recess.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hoshino in view of Whitaker's saddle with Bavaresco's adjustable saddle in order to reduce stress to the buttocks and backbone, as taught by Bavaresco (column 2 lines 40-50).

Claims 8-9, 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitaker in view of Hoshino and further in view of Jamieson 608,682.

Whitaker in view of Hoshino teaches the invention as substantially claimed, see above, and further teaches the saddle is symmetrical along an axis in the length direction (Hoshino: figure 1).

Whitaker in view of Hoshino teaches the invention as substantially claimed, see above. However, they fail to disclose: a saddle-width adjuster configured to change a length of the saddle in a width direction, and a saddle-length adjuster configured to change a length of the saddle in a forward and rearward direction.

Jamieson teaches a saddle-width adjuster 12, 15 (by sliding the seat outward along rail 12 as seen by the dotted lines in figure 1) configured to change a length of the saddle in a width direction, and a saddle-length adjuster 14, 15 (by sliding one of the sections forward thereby making the overall length of seat longer) configured to change a length of the saddle in a forward and rearward direction.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hoshino in view of Whitaker's saddle with Jamieson's adjustable saddle in order to adjust the seat to the most comfortable position for the user, as taught by Jamieson (column 1 lines 12-21).

Response to Arguments

Applicant's arguments filed 7/21/2011 have been fully considered but they are not persuasive.

Applicant argues that "Hence, Applicant is perplexed by the apparent inconsistencies found in the Office Action of September 14, 2011 and the Office Action of January 3, 2011. Clarification is, thus, requested."

The office action dated 9/14/2010 was a final rejection. In response to the final rejection, applicant filed an RCE on 12/14/2010 and amended the claims. In response to the RCE, a non-final office action was mailed 1/3/2011 presenting a new interpretation of the Whitaker reference to address the amendments made to the claims. In response to that office action, applicant presented the same claims as filed with the RCE. In the rejection above, the examiner applied Whitaker (and Hoshino) in the same

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manner (maintaining the previous grounds of rejection) as the office action dated 1/3/2011.

Although there may be inconsistencies between the office action dated 9/14/2010 and this office action, the inconsistencies stem from applicant amending the claims on 12/14/2010.

Applicant further argues that "Additionally, Applicant respectfully submits that, as previously noted by the Office, Whitaker and Hoshino "fail to disclose: the saddle is oscillated between a position where the saddle is in the upright posture against the base and a position where the saddle is inclined in a forward left or forward right direction." Applicant's claimed inclination is best described by reference to FIG. 10 B and paragraph [0041]."

As discussed above, this position was taken by the examiner in the office action 9/14/2010 (pre-RCE). Since the claims were amended with the RCE, the examiner changed the grounds of rejection in the office action dated 1/3/2011. However, in this office action the examiner maintains the grounds of rejection from the 1/3/2011 office action. As such, the issue applicant argues is moot and the finality of this office action is proper.

Applicant further argues that "Also, as shown in FIG. 10B direction arrow 45 illustrates the direction by which the saddle moves with respect to the ground when oscillating in the forward and left direction. None of Whitaker or Hoshino describe or suggest a similar oscillation/inclination. In this regard, Whitaker merely discloses frontward and rearward movement and, contrary to the assertions contained in the

Office Action, does not describe or suggest that the saddle is inclined or angled relative to the base in a forward and leftward or forward and rightward direction in front of the user. Hoshino also fails to describe or suggest such types of movement."

Although the movement in applicant's disclosure may be different from the movement of Whitaker, a broadest reasonable interpretation of applicant's claims is taught by Whitaker's movement. See the rejection above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OREN GINSBERG whose telephone number is (571)270-3074. The examiner can normally be reached on Mon-Thur, 8:00-4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LoAn Thanh can be reached on (571)272-4966. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/O. G./
Examiner, Art Unit 3764

/LoAn H. Thanh/
Supervisory Patent Examiner, Art Unit 3764